

Appln No. 10/817,297
Amdt date December 10, 2008
Reply to Office action of July 10, 2008

Amendments to the Drawings:

The attached sheets of drawings includes changes to FIGs. 3 and 6. These sheets, which include FIGs. 3 and 6, replace the original sheets including FIGs. 3 and 6.

Attachment: Replacement Sheets
 Annotated Sheets Showing Changes

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REMARKS/ARGUMENTS

In the Office action dated July 10, 2008, the examiner objected to the drawings for failure to include reference numbers for steps 100, 102, 104, 106, or 108 in FIG. 6. In response, applicant has amended FIG. 6 to include the reference numbers, and applicant therefore respectfully requests withdrawal of this objection.

The examiner also objected to the drawings for failure to include reference number 46 in FIGs. 6 and 7d and for failure to show "ADC 44" in FIG. 7d. However, FIG. 6 does not include reference number 46 because FIG. 6 does not depict the processor identified by reference number 46. As stated in the Brief Description of the Drawings, FIG. 6 is a flow chart depicting the operational flow of processing software to process spectral data. As such, FIG. 6 does not depict the processor 46, but rather depicts a sequence performed by the software. Accordingly, applicant respectfully requests withdrawal of the objection to FIG. 6.

Additionally, FIG. 7d depicts a measured spectrum from a specimen that contains plural different dyes, and therefore need not depict the ADC 44. Brief Description of the Drawings, page 4, lines 11-12. However, to clarify the reference to FIG. 7d in the paragraph beginning at page 7, line 30, applicant has amended that paragraph to note that FIG. 7d is referenced for its depiction of "the measured imaging spectrum data of a sample." Given this clarification and the description of FIG. 7d in the Brief Description of the drawing, FIG. 7d need not depict the ADC 44, and applicant therefore respectfully requests withdrawal of the objection to FIG. 7d.

The examiner also objected to the drawings for failure to include labels indicating the fluorescent dye in each spectrum shown in FIGs. 7a-d and at what wavelength the measurements were taken. However, FIGs. 7a-c depict exemplary emission spectra for samples including a single dye, and are presented as a comparison to FIG. 7d, which depicts an exemplary emission spectrum for a sample including plural dyes. Therefore, the specific fluorescent dyes used in the spectra of FIGs. 7a-d need not be identified, and applicant respectfully requests withdrawal of this objection.

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While the examiner did not object to FIG. 3, applicant has amended that drawing to correct the reference number used to identify the "ADC". In particular, applicant has replaced reference number 58 with reference number 44.

The examiner also objected to claim 17 as dependent from a canceled claim. In response, applicant has amended claim 17 to depend from claim 14. As such, applicant respectfully requests withdrawal of this objection.

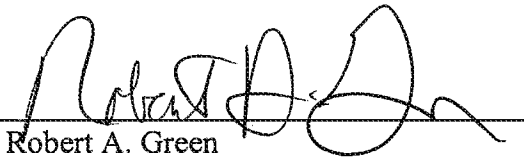
Turning to the prior art rejections, the examiner rejected claims 14, 17-25 and 29 under 35 U.S.C. §103(a) as allegedly obvious over Recktenwald, et al. (U.S. Patent No. 4,745,285) in view of Dabiri, et al. (U.S. Patent No. 5,871,628). In making this rejection, the examiner admits that Recktenwald fails to teach an analyzer that is operative to quantitatively determine an intensity contribution to the fluorescence from each of the plurality of different excitable markers, wherein the analyzer uses a linear unmixing operation. Office action, page 6. The examiner relies on Dabiri to remedy this deficiency. However, Dabiri fails to teach or suggest that the analyzer is operative to *quantitatively* determine an intensity contribution to the fluorescence, as recited in independent claim 14. As noted in the specification at page 8, lines 1-2, the quantitative determination involves determining "the weights of each dye to quantitate the respective dye intensities." The examiner admits that this quantitative step is not disclosed in Recktenwald, and Dabiri fails to remedy this deficiency. In particular, in Dabiri, linear unmixing is used to *qualitatively* determine the presence of one particular dye (representing a DNA base pair) at one particular point in time. Dabiri nowhere teaches or suggest any quantitative determination of the dye, and nowhere teaches or suggests the use of linear unmixing to perform such a quantitative determination. In contrast, the present claims recite the quantitative determination of an intensity contribution to the fluorescence from each of a plurality of excitable markers, and recite accomplishing that determination using linear unmixing. As neither Recktenwald nor Dabiri teach or suggest these features, independent claim 14, and all claims dependent therefrom, including 17-25, and 29, are allowable over Recktenwald and Dabiri.

Claims 14, 17-25 and 29 remain pending in this application. By this amendment, applicant has amended the specification to clarify the reference to FIG. 7d, amended claim 17 to

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depend from claim 14, and amended the drawings. The amendments find full support in the original specification, claims and drawings, and no new matter is presented. In view of the above amendments and remarks, applicant submits that all of pending claims 14, 17-25, 29 are in condition for allowance. Applicant therefore respectfully requests reconsideration and a timely indication of allowance. However, if there are any remaining issues that can be addressed by telephone, applicant invites the examiner to contact applicant's counsel at the number indicated below.

Respectfully submitted,
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LES/dwk

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